Backed by over 25 years of clinical performance, the Obtura III MAX is the preferred instrument for all backfill procedures. And with the introduction of the Obtura MAXPACK to our complete line of endodontic products, this combination will save you TIME and MONEY during obturation.
The Obtura III Max®

• Easily fills root canals with warm gutta percha in seconds for MAXimum obturation success
• Control the speed of gutta percha extrusion with the ergonomic handpiece designed for superior tactile sensation
• Cartridge-free operation means low cost per canal

Product Features:
• Thermal protector designed for patient safety
• Lightweight, ergonomic handpiece design reduces hand and wrist fatigue
• Unmatched 2-year warranty

The Obtura MaxPack

• Convenient, cordless design allows any operatory to become your endo operatory, saving you time and reducing your need to purchase multiple pieces of equipment
• Create an endodontic post space, remove excess gutta percha during lateral condensation, or compact gutta percha to prepare for warm gutta percha injection techniques all with one device
• Confidence in quality. Backed by Obtura Spartan Endodontics’ comprehensive 1-year warranty

Product Features:
• Four temperature presets ranging from 150°C to 230°C
• Lightweight, weighing only 2.22 ounces
• Six slots for heat pluggers and ergonomic grip allow for operation in any quadrant of the mouth
• Auto shut-off after 10 minutes of downtime for safety
• High-quality lithium ion battery minimizes downtime for charging

MaxPack Heat Pluggers

• Color-coded ISO standard sizes make plugger recognition easy and reduce chair time
• Flexible, tempered stainless steel pluggers navigate curved canals, smoothly providing heat to gutta percha in the most apical region
• Autoclaveable for multiple uses, reducing inventory needs

Available Sizes:
25/.05  60/.12  55/.08  45/.04  35/.04
25/.03  55/.10  55/.06  40/.04  30/.04

824-710  MaxPack 30/.04 taper Plugger
824-711  MaxPack 35/.04 taper Plugger
824-712  MaxPack 40/.04 taper Plugger
824-713  MaxPack 45/.04 taper Plugger
824-714  MaxPack 50/.06 taper Plugger
824-715  MaxPack 55/.08 taper Plugger
824-716  MaxPack 55/.10 taper Plugger
824-717  MaxPack 60/.12 taper Plugger
824-718  MaxPack Hot Testing Tip
Obturation Accessories

S-Kondensers
- Obtura S-Kondensers each feature nickel-titanium ends for apical compaction in curved canals and flat, stainless steel ends for coronal compaction in one instrument
- Available in ISO color-coded sizes individually or in sets of 3, the S-Kondensers are appropriately configured for any canal anatomy

Applicator Needles
- Three Sizes: 20, 23, 25
- Available in 6-packs or bulk quantities

Gutta Percha
- Available in Regular Flow and Flow 150 material to complement nearly all pellet-based gutta percha delivery systems

The Obtura Technique

Down Pack:

1. Master Cone Selection
   Once the root canal has been shaped properly, choose an appropriate master gutta percha cone

2. Plunger Selection
   Once the canal has been dried, select the heater plunger that stops within 3-5mm from the working length of the canal without binding

3. Master Cone Compaction
   Place the master gutta percha cone, coated with sealer, in the canal and sear it off with the Obtura Maxpack at the orifice, lightly compacting the gutta percha with a stainless steel plugger at the orifice

4. Apical Obturation - I
   Activate the Maxpack heating unit and down-pack the gutta percha to your predetermined length

5. Apical Obturation - II
   Allow the gutta percha to cool, apply a 1-second burst of heat to withdraw the plunger from the root canal, and gently compact the remaining gutta percha with a small hand plugger

Backfill:

1. Insert the Obtura III MAX needle into the canal and pull the trigger to backfill with gutta percha to the canal orifice

2. You may choose to continue backfilling until the canal is sufficiently filled or enough gutta percha is present to create a post space

Disclaimer: Obtura Spartan Endodontics products are not available in all markets. To confirm availability, please contact your local Obtura Sales Representative. This technique sheet is to be used as a guideline and the clinician’s judgment is paramount, as each case is unique. Obtura Spartan recommends that the clinician practices all techniques on extracted teeth or practice instruments prior to providing care for patients. The basis for any successful obturation technique is an effectively cleaned and shaped canal system. Cases courtesy of Garrett M. Guess, DDS. La Jolla, CA.
Clinical Research Studies

STUDY #1: A COMPARISON OF THREE GUTTA-PERCHA OBTURATION TECHNIQUES TO REPLICATE CANAL IRREGULARITIES

ABSTRACT: A split-tooth model with artificially created intracanal wall defects was used to compare three gutta-percha (GP) obturation techniques cold lateral, warm lateral, and warm vertical. The techniques were evaluated and compared based on defect replication quality as a function of defect location and size. The obturations were evaluated on an ordinal scale, 0 to 4, based on how much each defect was replicated. There was a statistically significantly better result with both warm techniques compared to cold lateral obturation, while there was no significant difference between the warm obturation techniques.

STUDY #2: COMPARISON OF THE OBTURATION DENSITY OF COLD LATERAL COMPACTION VERSUS WARM VERTICAL COMPACTION USING THE CONTINUOUS WAVE OF CONDENSATION TECHNIQUE

ABSTRACT: The purpose of this in vitro study was to compare quantitatively the density of standard cold lateral gutta-percha compaction and warm vertical compaction by using the continuous wave of condensation technique. Forty transparent acrylic blocks with 30-degree, curved root canals were instrumented using Gates Glidden burs and Profile 0.06 taper rotary nickel-titanium files in a crown-down manner. The blocks were weighed and randomly assigned to two evenly distributed groups. Group A was obturated with the cold lateral-compaction technique using medium-fine, gutta-percha accessory points until the canal was completely filled. Group B was obturated with the continuous wave of condensation technique until the canal was completely filled. The blocks were weighed again after obturation. Data were analyzed using a two-sample t test at the 5% significance level. Results demonstrated that the continuous wave of condensation technique resulted in a significantly greater density compared with cold lateral compaction. Warm vertical compaction using the continuous wave of condensation technique in acrylic blocks resulted in a greater gutta-percha fill by weight compared with standard cold lateral compaction.
The Gold Standard
Ultrasonic Tip Guide
**Obtura Spartan Ultrasonics**

**BENEFITS OF OUR ULTRASONIC TIP LINES:**

**BUC® Ultrasonic Tips**

**ACCESS REFINEMENT**

**BUC-1**
Rounded tip eliminates clefts and ditches in the pulp chamber floor

**BUC-1A**
Aids in the opening of the isthmus between canals in the same root

**BUC-2**
Disk-like tip allows you to horizontally smooth pulp chamber floor

**BUC-2A**
Smaller diameter allows for precise smoothing around corners

**BUC-3**
Extremely active tip for cutting apically into calcified canals and troughing around posts

**BUC-3A**
Designed for troughing around broken instruments in the coronal half of the root

**TIP TAXI**
Designed to hold all of Obtura Spartan's endodontic ultrasonic instruments. Organizes tips and wrench, eliminating needless loss. Autoclavable.

**Power Settings:** In general, start with a lower setting and only incrementally increase the power if necessary to safely accomplish the procedure.

* The power settings used are determined by the clinician’s experience with ultrasonics and the power needed to safely complete the specific procedure.

* Indicated power settings are intended for use with Obtura Spartan ultrasonic units. Setting may not be appropriate for other units.

⚠️ *See Instructions for Use*
**KiS® Ultrasonic Tips**

**MICROSURGICAL**

- **KiS-1D**
  - 3.0mm/0.5mm
- **KiS-1D2**
  - 2.0mm/0.5mm
- **KiS-1D4**
  - 4.0mm/0.5mm
- **KiS-2D**
  - 3.0mm/0.7mm

- **KiS-3D**
  - 3.0mm/0.5mm
- **KiS-3D2**
  - 2.0mm/0.5mm
- **KiS-4D**
  - 3.0mm/0.5mm
- **KiS-5D**
  - 3.0mm/0.5mm
- **KiS-5D2**
  - 2.0mm/0.5mm
- **KiS-6D**
  - 3.0mm/0.5mm

**CPR® Ultrasonic Tips**

**RETREATMENT**

- **CPR-1**
  - For vibrating posts and cores, and aiding in crown and bridge removal
- **CPR-2D**
  - This versatile and durable tip provides enhanced energy for removal of core materials
- **CPR-3D**
  - Smaller taper sub-orifice tip used to remove obstructions in the canal
- **CPR-4D**
  - Smaller taper sub-orifice tip used to remove obstructions in the canal
- **CPR-5D**
  - Smaller taper sub-orifice tip used to remove obstructions in the canal
- **CPR-6**
  - Combines the flexibility and strength of a titanium alloy tip with the proven cutting ability of a CPR tip
- **CPR-7**
  - Longer than the CPR 6, but with the same flexibility, strength and cutting ability
- **CPR-8**
  - Our longest and thinnest tip available allows access to the deepest obstructions in the canal
Spartan Wave™ Piezo Electric Ultrasonic Unit

Obtura Spartan Endodontics is introducing the latest addition to its product line, The Spartan Wave™ Piezo Electric Ultrasonic Unit. The Spartan Wave, used in conjunction with Obtura Spartan’s wide variety of ultrasonic tips, provides a complete system that clinicians can use for preparation of root canals, retrograde preparation, and gutta percha condensation, in addition to scaling and root planing, and treatments for periodontics.

Indications for Use:

Endodontics:
- Preparation, cleaning and irrigation of root canals
- Retrograde preparation of root canals
- Gutta Percha Condensation

Periodontics:
- Periodontal Treatments
- Scaling and root planing

Benefits of The Spartan Wave™

AutoSweep Technology
AutoSweep locks in the optimal frequency for each tip, regardless of geometry

Brilliant LED Control
20 intensity increments are illuminated by blue LED lights for smooth and accurate power adjustment

Lightweight Handpiece
Constructed from a durable, lightweight housing and titanium core, weighing less than 1 oz., the Spartan Wave handpiece reduces hand and wrist fatigue during use

Variable Water Adjustment
Activate water on control panel and adjust flow accordingly
**Clinical Research Studies**

**STUDY #1: COMPARISON OF THE EFFICIENCY OF FOUR DIFFERENT ULTRASONIC TIPS TO REMOVE DENTIN OVER TIME**

**INTRODUCTION:** The objective of this study was to compare the efficiency of 4 ultrasonic tips to remove dentin from sectioned third molars.

**METHODS:** The 4 groups (n = 5) were as follows: ET-18D, BUC-1, TUF-2, and P5. A P5 Newtron XSTM ultrasonic unit was used. A universal tester applied a downward force of 15g, previously determined in a pilot study, in cycles of 20 seconds for a total of 4 minutes of instrumentation time. Efficiency was measured by change in weight of the dentin specimen measured to the nearest 0.01 mg after 2 and 4 minutes of instrumentation.

**CONCLUSIONS:** On the basis of the results, the BUC-1 tip removes dentin more efficiently than the other tips tested.

**STUDY #2: ULTRASONICS IN ENDODONTICS: A REVIEW OF THE LITERATURE**

**ABSTRACT:** During the past few decades endodontic treatment has benefited from the development of new techniques and equipment, which have improved outcome and predictability. Important attributes such as the operating microscope and ultrasonics (US) have found indispensable applications in a number of dental procedures in periodontology, to a much lesser extent in restorative dentistry, while being very prominently used in endodontics. US in endodontics has enhanced the quality of treatment and represents an important adjunct in the treatment of difficult cases. Since its introduction, US has become increasingly more useful in applications such as gaining access to canal openings, cleaning and shaping, obturation of root canals, removal of intracanal materials and obstructions, and endodontic surgery. This comprehensive review of the literature aims at presenting the numerous uses of US in clinical endodontics and emphasizes the broad applications in a modern-day endodontic practice.

**Product Listing**

**BUC Ultrasound Tips**
- 930-041 BUC 1
- 930-042 BUC 2
- 930-043 BUC 3
- 930-049 BUC 3A
- 930-050 Set of 6 BUC Tips

**CPR Ultrasound Tips**
- 930-044 CPR 1D
- 930-045 CPR 2D
- 930-046 CPR 3D
- 930-047 CPR 4D
- 930-048 CPR 5D

**KiS Ultrasonic Tips**
- 930-049 KiS 1D
- 930-050 KiS 2D
- 930-051 KiS 3D
- 930-052 KiS 4D
- 930-053 KiS 5D
- 930-054 KiS 6D
- 930-055 Set of 6 KiS Tips

**SL Ultrasonic Tips**
- 930-030 SL 1A
- 930-031 SL 2A
- 930-032 SL 3A
- 930-033 SL 4A
- 930-034 Set of 4 SL Tips

**PST Ultrasonic Tips**
- 941-010 PST 1
- 941-011 PST 2
- 941-012 PST 3
- 941-013 PST 4
- 941-014 PST 5
- 941-015 PST 6
- 941-016 PST 7
- 941-017 PST 8
- 941-018 Set of 8 PST Tips

**Spartan Wave™**
- 948-100 Spartan Wave
- 948-202 Wave Handpiece
- 47180 Filter Replacement
- 47114 HP Connector, O-Ring
- 948-104 Ultrasonic Tip Intro Kit
- 941-001 Tip Wrench

**NOTE:** All tips are available in EMS threading except: BUC 3A EMS, SL & PST style tips

Rx Only. See instructions for use. Obtura Spartan Endodontics does not assume responsibility or liability for incorrect diagnosis or failed procedures due to operator error or equipment malfunction. Clinicians who are not familiar with the techniques and use of these products should attend courses and receive training on the subject prior to use. Products may not be available in all areas. Please contact your Obtura Spartan Endodontics Sales Representative for availability and pricing.
Visit us online at obtura.com or call (800) 344-1321 to order direct.
KiS Microsurgical Instruments

The KiS® line of instruments meets the demand for smaller, more customizable instruments. The modular design gives you the freedom to change tips and the ability to swap worn or damaged components, without having to replace an entire instrument.

Curettage

KC-1 (L)  
Columbia curette; Slightly angled sharp tip allows removal of granulation tissue.

KC-2 (R)  
Columbia curette; Slightly angled sharp tip allows removal of granulation tissue.

KC-3 (L)  
Gracey 13 cutting beak allows removal of granulation tissue from bony crypt.

KC-4 (R)  
Gracey 14 cutting beak allows removal of granulation tissue from bony crypt.

KC-7 (L)  
Larger extra-long beak with sharp cutting angle for hard to reach areas.

KC-8 (R)  
Larger extra-long beak with sharp cutting angle for hard to reach areas.

KC-9  
Straight handle with small tip for removal of granulation tissue, etc. (2.0mm)

KC-10  
Straight handle with small tip for removal of granulation tissue, etc. (4.0mm)

KC-13 (L)  
Angled tip for removal of granulation tissue in hard to reach places. (2.0mm)

KC-14 (R)  
Angled tip for removal of granulation tissue in hard to reach places. (2.0mm)

KC-15 (L)  
Angled tip for removal of granulation tissue in hard to reach places. (1.5mm)

KC-16 (R)  
Angled tip for removal of granulation tissue in hard to reach places. (1.5mm)

Features

- High carbon 440A Surgical grade stainless steel
- Modular “cone-socket” design
- High magnification capabilities
- Pure Titanium handles

Micro Explorers

KX-1  
Micro-explorer with 115° bend to explore fracture lines, etc.

KX-2  
Micro-explorer with 90° bend to access buccally positioned root apex.

KEX Explorer  
For general use.

Explorer/Probe

KEX Explorer  
For general use.

KPP  
KiS Perio probe.
Pluggers & Burnishers

KP-1 Microplugger (0.25mm)

KP-2 Microplugger (0.50mm)

KP-3 Microplugger (0.75mm)

KP-4 (L) Double-angled microplugger with tip for posterior roots. (0.25mm)

KP-5 (R) Double-angled microplugger with tip for posterior roots. (0.50mm)

KP-6 (L) Double-angled microplugger with tip for posterior roots. (0.50mm)

KP-7 (R) Double-angled microplugger with tip for posterior roots. (0.50mm)

KP-8 (L) Double-angled microplugger with tip for posterior roots. (0.75mm)

 KP-9 (R) Double-angled microplugger with tip for posterior roots. (0.75mm)

KB-1 KiS Ball Burnisher (1.3mm)

KB-2 KiS Ball Burnisher (1.4mm)

KM-1 Used for packing material in a retrofilling cavity.

KM-2 Used for packing material in a retrofilling cavity.

KM-3 Used for transporting MTA from the block to the retrocavity (hatchet).

KM-4 Used for transporting MTA from the block to the retrocavity (hoe).

MTA Block Used to manipulate MTA material.

Instrument Handles

KiS SE Titanium handle single end

KiS DE Titanium handle double-ended

KiS SCAL Titanium scalpel handle

KiS STAR Titanium handle with star collet fastener for micro mirrors.

KM-2 Used for packing material in a retrofilling cavity.

KM-3 Used for transporting MTA from the block to the retrocavity (hatchet).

KM-4 Used for transporting MTA from the block to the retrocavity (hoe).

MTA Block Used to manipulate MTA material.

Material Placement

Mirrors

Standard Front surface Rhodium coated mirror. (21mm)

Flexible micro mirrors in round and diamond shapes. (2mm or 3mm)

Scissors

KISC Castroviejo Scissors Long, thin, sharp beaks allow for easy suture removal.

KISCR Curved Castroviejo Scissors Long, thin sharp beaks allow for easy suture removal.

Forces

KITPSH6C Forceps 6" Tissue pliers and tissue plier

KITPSH6CX Forceps 6" Tissue pliers, 1 x 2, for cotton pellets and other tissue debris.

Needle Holder

KINCCSR Castroviejo Needle Holder Used for delicate suturing with 5x0 and 6x0 microsutures; Tungsten Carbide construction.

Tissue Pliers

KIFSPH Huey Plier Huey plier; diamond coated

Wrench Used for fastening tips into the titanium handles.

©2013 Obtura Spartan® Endodontics. Products not available in all countries. See Instructions for Use. Rx only. Obtura Spartan Endodontics - 2260 Wendt Street, Algonquin, IL 60102.
“Designed from tip to handle”

- Dr. John T. McSpadden

**SELF-PILOTING CUT FLIP TIP:**

The ONE ENDO File’s unique Self-Piloting Cut Flip Tip is an efficient, active cutting tip that works the complete length of the file. The blade begins cutting immediately while a curved spoon pulls debris away, resulting in a self-guiding tip that effectively manages torsional stress, reduces the risk of canal transportation and nearly eliminates binding in the canal.

**FEATURING TWO UNEQUAL TAPERS, SIDE BY SIDE**

- Greater cutting efficiency
- Reduced torque loading
- Superior debris removal
- Improved flexibility

The ONE ENDO File incorporates two unequal tapers, side by side, within the same instrument. This patented design affords the ONE ENDO File superior flexibility, reduced torque loading, and an improved ability to remove debris. While its larger tapered cutting edge engages the canal wall, its opposing smaller tapered edge provides additional space for breaking down and removing debris. This eliminates excess friction caused by debris build up and equalizes pressure on the file’s cutting edge as it engages the canal wall.

**INTRODUCING THE FIRST OF A NEW GENRE OF ROTARY FILES**

With two unequal tapers side by side and a unique Self-Piloting Cut Flip Tip, the ONE ENDO™ File offers the best all-around performance of any similarly sized file, regardless of technique.

**TIP CROSS SECTION 1**

Toward the tip, the cutting flutes are equal just behind the Self-Piloting Cut Flip Tip, keeping the tip of the file centered in the canal.

**TIP CROSS SECTION 2**

As the file progresses, one taper acts as a cutting edge while the other begins to break down and transport debris coronally out of the canal. This creates an equilibrium of alternating forces along the canal’s walls.

**TIP CROSS SECTION 3**

At the largest diameter, the cutting edge engages the canal wall while the smaller taper provides additional space for breaking down and removing debris.

**RECOMMENDED HANDPIECE SETTINGS:**

500-600 RPM  TORQUE: 300-500 G-CM

The ONE ENDO File line employs a progressive heat treatment protocol. Heat treatment is only used on larger-diameter file sizes as needed, balancing flexibility with torsional resistance.

*Internal data on file. Express opinion of NanoEndo based on testing data.*

© Obtura Spartan Endodontics 03/2015. See instructions for use. Rx Only. Products may not be available in all areas. Please contact your Obtura Spartan Endodontics Sales Representative for availability and pricing. Obtura Spartan Endodontics - 2260 Wendor Street, Algonquin, IL 60102
The only file with two unequal tapers, side by side